

BEFORE THE  
**Federal Communications Commission**

WASHINGTON, D.C. 20554

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MAR - 1 1996

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

In the Matter of )

Amendment of the Commission's )

Rules to Permit Flexible Service )

Offerings in the Commercial Mobile )

Radio Services )

WT Docket No. 96-6

To: The Commission

COMMENTS  
OF  
SR TELECOM INC.

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**SUMMARY**

SR Telecom Inc. ("SR Telecom") strongly supports the Commission's proposal to permit broadband Commercial Mobile Radio Services ("CMRS") providers to flexibly offer fixed Wireless Local Loop ("WLL") service. SR Telecom urges the Commission to expand its proposal so that subscribers of narrowband CMRS, Multipoint Distribution Service ("MDS") and Local Multipoint Distribution Service ("LMDS") may also receive the many benefits offered by WLL technology. In this way, the Commission will expedite CMRS implementation, particularly in rural and other less attractive areas.

SR Telecom opposes, however, any suggestion that fixed service spectrum is a proper target for future reallocations to the mobile services. Should the Commission determine that additional spectrum is, in fact, needed by mobile services, SR Telecom recommends that the Commission allocate spectrum which the National Telecommunications and Information Administration ("NTIA") redesignates for transfer from government sector to private sector use.

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COMMENTS  
OF  
SR TELECOM INC.

SR Telecom Inc. ("SR Telecom"), by its attorneys, respectfully submits the following Comments in response to the Notice of Proposed Rule Making ("Notice") of the Federal Communications Commission ("Commission") released January 25, 1996 in the above-styled matter.<sup>1/</sup>

**I. PRELIMINARY STATEMENT**

1. SR Telecom is a Canadian manufacturer of point-to-multipoint radio equipment employed internationally to provide wireless, fixed telephone subscriber service, as well as supervisory control and data acquisition ("SCADA") transport for industrial uses. Many SR Telecom systems are

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<sup>1/</sup> 61 Fed. Reg. 6189 (February 16, 1996).

installed throughout North America, including the United States, Canada and Mexico, as well as in Europe and Latin America, Pacific Rim countries, the Middle East, and Africa. These systems provide telephone service to hundreds of thousands of subscribers who would otherwise go unserved. SR Telecom is currently working closely with local exchange carriers ("LECs") and others in the United States with a view toward utilization of its technology to provide wireless loop services primarily in rural and sparsely populated areas.

2. Wireless loop technology provides a spectrum-efficient, valuable source of competition for other forms of voice and data telecommunications. Point-to-multipoint Time Division Multiple Access ("TDMA") systems utilize proven technology specifically designed and employed for the purpose of providing wireless service to subscribers who are frequently located several miles from a telephone central office and who cannot be economically served by copper or fiber optics.

3. The expanded delivery of wireless loop services will provide local exchange access to many new subscribers, some of whom have no service currently, at significantly lower costs than that which can be provided using conventional wire and cable plants. These wireless systems

permit the delivery of high quality telephone service with minimum delay. Maintenance is relatively inexpensive and service can be provided rapidly over extended distances. SR Telecom has demonstrated the spectral efficiency of this technology, as compared to point-to-point technology, in various meetings with the Commission over the past eighteen months.

4. SR Telecom also filed with the Commission on September 8, 1995 its Response to the Petition for Reconsideration and Clarification ("Response") which was filed by United States Wireless Cable, Inc. in MM Docket No. 94-131 and PP Docket No. 93-253. That Response urged the Commission to clarify that the frequency band 2500-2690 MHz is available for wireless loop service, particularly in light of the Commission's statement in Paragraph 59 of its Report and Order ("MDS Order") that it will facilitate introduction of "other kinds of services in the Multipoint Distribution Service spectrum." MDS Order at ¶ 59.

5. The Commission also stated in its MDS Order that it will permit "certain technical rules" to be waived so that other kinds of services can be provided in the MDS spectrum. MDS Order at ¶ 59. SR Telecom's Response requested the Commission to clarify that it will favorably

entertain requests for waiver of any technical rules that would impede the introduction of wireless loop service in the MDS band.

6. Subsequently, the Commission released on January 25, 1996 its Notice that proposed to amend the Rules and Regulations to permit flexible service offerings in the CMRS. While this proposal generally invited comments on the appropriate level of WLL in the broadband CMRS, SR Telecom submits that the Commission should also utilize this proceeding to further amend its rules to facilitate the introduction of wireless loop services in the MDS and LMDS categories.

## II. COMMENTS

### A. **The Commission Correctly Targets WLL as a Means to Enhance CMRS Providers' Service to Customers**

7. SR Telecom applauds the Commission for introducing its proposal to permit WLL services to be offered by broadband CMRS providers, including Personal Communications Services ("PCS"), Cellular Radio Telephone Service ("Cellular") and Special Mobile Radio ("SMR") providers. Notice at ¶ 1. SR Telecom agrees with the Commission that the proposed measures should increase competition in

wireless services and promote competition between wireless and wireline services.

8. The Commission is also correct to recognize that its current rules are "unclear" concerning both the schedule of fixed ancillary services that may be provided by PCS carriers and the types of secondary, auxiliary, and incidental services that may be provided by CMRS providers. Notice at ¶ 5. SR Telecom agrees with the Commission that:

The characterization of permissible use in our rules may be inhibiting carriers intending to use radio links to replace existing wireline service or to bring service to rural or less attractive areas otherwise not being adequately served by wireline providers.

Notice at ¶ 5. SR Telecom fully supports adoption of the Commission's proposals to clarify its rules to permit CMRS carriers to use radio links both in place of existing wireline service and in order to bring wireless loop service to areas where service is unavailable or unattractive to wireline providers.

9. In its Notice, the Commission proposed to define WLL as "the path between a subscriber and the first point of switching or aggregation of traffic." Notice at ¶ 6. The Commission invited comment on this definition. SR Telecom



agrees with the Commission that an overly narrow definition could unintentionally limit the use of emerging technologies. Thus, SR Telecom believes that any definition of WLL must be sufficiently broad so that it is "unnecessary to examine the mobile or fixed nature of each particular application." Notice at ¶ 6. SR Telecom believes that the WLL definition should not create a situation of limited use for point-to-multipoint and/or point-to-point equipment for any of the components utilized in developing networks. SR Telecom emphasizes that this need for a broad definition is particularly appropriate in situations where network extensions, such as network repeaters, are necessary to provide service to rural consumers. Including the phrase "first point of switching or aggregation" could result in restrictive deployment of technologies best suited for the rural services. The definition should allow for the chosen technology to extend from the subscriber location to any switching center by the service provider.

**B. Barriers Need to Be Removed in Order to Ensure That CMRS Providers Gain Maximum Benefit From WLL Technology**

10. The Commission accurately observed that the federal government and many state governments are interested in removing barriers to competitive provision of local exchange service throughout the United States. Notice

at ¶ 8. In order to achieve this goal, SR Telecom believes that technical rules regarding the various services should not be overly restrictive and thereby prevent the introduction of new technologies. For example, Commission rules fully address point-to-point microwave but do not sufficiently address use of point-to-multipoint microwave -- which is a much more efficient use of spectrum for certain services. Under existing rules, an exhaustive waiver process is necessary in order to utilize point-to-multipoint technology to its fullest extent.

11. To that end, SR Telecom applauds the Commission's proposal to permit broadband CMRS providers to offer the equivalent of local exchange service using existing spectrum allocated for PCS, Cellular and SMR. SR Telecom agrees that this flexible regulatory approach will help eliminate the need for the Commission to initiate a rule making or grant multiple waivers each and every time a broadband CMRS provider wishes to employ a new technology or adjust its operational mode to respond to consumers' changing communications requirements. Notice at ¶ 9. The Commission's proposal would permit CMRS providers to utilize the best solution available for each customer, without the necessity of obtaining multiple waivers of the Rules and Regulations.

12. The rules, as they currently exist, contain numerous requirements -- several of which are unnecessarily stringent. See, e.g., 47 C.F.R. §§ 21.106 and 74.936. These requirements are commonly met by point-to-point microwave service providers, for example, but are often unachievable with other technologies. The impact of such restrictive rules can be easily overcome by eliminating these rules and allowing service providers to police the benefits and potential drawbacks of each technology by utilizing conventional engineering practices and by respecting interference criteria vis-a-vis other users.

13. Amendment of the Commission's regulations to eliminate the requirement for securing rule waivers to offer WLL will unleash a flood of technological advancements. This is because the uncertainty caused by having to request rule waivers has led to a natural reluctance to develop products and new systems in emerging technology bands. Waivers, after all, are perceived as temporary and, in the eyes of corporate decision-makers, a temporary solution is not conducive to long-term investment.

**C. Expanded Service Options on PCS Channels**

14. The FCC proposed to define PCS as a family of services that could provide communications to individuals and businesses and that could be integrated with a variety of computing networks. Notice at ¶ 10. SR Telecom agrees with the comments made by parties in response to the Notice of Proposed Rule Making in GEN Docket No. 90-314 that PCS should be flexible enough to provide a wide range and variety of services and that fixed services on PCS channels should be free of regulatory encumbrances to the maximum extent possible. However, the Commission recognizes that its PCS rules seem to compel a carrier to seek a waiver to offer primarily fixed service by demonstrating that such service best meets the demand of an area. Notice at ¶ 12. Specifically, the current rules provide that "fixed services (except for broadcast services) may be provided as ancillary to mobile operations". 47 C.F.R. § 24.3. The Commission observed in its Notice that the "ancillary" fixed use language of the rule was not intended to exclude fixed services entirely, but was instead meant to prohibit broadcast and non-ancillary fixed services in PCS spectrum due to the limited amount of spectrum available to provide mobile service and the availability of other frequency bands for broadcast and fixed services. Notice at ¶ 12. In 47 C.F.R. § 24.229(d), the Commission restricts assignment

of spectrum before the year 2000, thus limiting the full use of the spectrum for all alternatives. Further, limiting PCS license holders to 40 MHz aggregated spectrum does not allow for full competitive positioning with other wireless providers and, once again, limits the deployment of a range of technologies to better serve the consumer.

15. SR Telecom agrees with the Commission's tentative conclusion in its Notice that these restrictions will unintentionally hinder PCS carriers from quickly and economically utilizing channel capacity in order to meet market demand.<sup>2/</sup> Therefore, SR Telecom fully supports adoption of the Commission's proposal to clarify its existing broadband PCS rules so that broadband PCS providers may provide WLL along with mobile service on spectrum allocated for broadband PCS and that they may assign

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<sup>2/</sup> There has been much confusion among CMRS entities concerning the term "ancillary". The term "ancillary" could include site interconnection, backhaul, or delivery of services by a medium other than the PCS equipment. When a network is designed utilizing switches, base station controllers, and base stations, it is unclear under the current rules whether the RF transmission medium is considered PCS equipment or whether it is ancillary equipment. Similarly, when fixed services are extended from a base station controller to several locations where fixed data and/or voice services are required -- or from a base station to several fixed locations -- it is unclear whether the set-up is considered ancillary. This lack of certainty has resulted in countless debates among network designers and corporate decision-makers concerning the proper definition of ancillary.

spectrum immediately within their licensed area. Notice at ¶ 13. Clearly, flexibility in the rules and the elimination of technical barriers currently imposed by the rules will enhance the offerings available to consumers and will help speed the deployment of emerging technologies.

16. The Commission requested comment on whether the currently-allocated spectrum will provide sufficient capacity for mobile services if WLL services are provided in that spectrum along with mobile services. SR Telecom believes that existing broadband PCS spectrum provides sufficient capacity for mobile services. However, SR Telecom believes that existing broadband PCS spectrum limits the service providers' selection of equipment for provision of WLL service to the consumer. Rule restrictions limiting PCS license holders to 40 MHz aggregated spectrum could limit the provision of WLL in urban areas. Accordingly, SR Telecom recommends that this limitation be reviewed for possible modification to ensure capabilities for all wireless providers to compete equally in both urban and rural environments.

**D. Expanded Service Options on Other CMRS Channels**

**1. Cellular and SMR**

17. SR Telecom agrees with the Commission that broadband CMRS should be afforded uniform treatment, regardless of the type of CMRS provided. In this way, the Commission will obtain its goal of treating commercial mobile radio services in a consistent, "substantially similar" manner. To achieve this result, SR Telecom believes that the Commission must amend its rules for Cellular and SMR services in order to permit flexibility in the provision of fixed wireless local loop.

18. Specifically, SR Telecom believes that Part 22 restrictions on fixed base-to-base communications, contained in Section 22.923 of the Rules and Regulations, 47 C.F.R. § 22.923, should be amended to permit mobile stations to communicate with WLL equipment. Similarly, base transmitters should be permitted to communicate directly with mobile stations, through cellular repeaters or through WLL equipment. In addition, auxiliary test stations should be allowed to communicate with base stations, mobile stations, or WLL equipment for testing purposes.

19. SR Telecom believes that Part 90 limitations on operations between base stations at fixed locations contained in Section 90.419 of the rules, 47 C.F.R. § 90.419 should be amended to enable WLL to be provided by SMR operators directly to and from any switching location as alternative use of the licensed spectrum. Finally, Part 20 should be amended so that WLL can be provided by CMRS providers as a matter of general policy. See, e.g., 47 C.F.R. § 20.9.

## **2. Narrowband CMRS**

20. SR Telecom advocates that narrowband CMRS providers be permitted the same operational flexibility as broadband CMRS providers. The Commission is therefore urged to permit narrowband and broadband CMRS providers to offer WLL service. In this way, paging, narrowband PCS, commercial 220 MHz service, and interconnected Business Radio Service will also realize the benefits of WLL. This proposal would further the Commission's goal of fostering substantially similar services among all CMRS technologies.



### **3. MDS and LMDS**

21. SR Telecom urges the Commission to grant the same considerations for flexible use of WLL to the balance of the CMRS spectrum, as well as to MDS and LMDS. MDS and LMDS spectrum should be made available for both delivery of WLL and infrastructure backhaul and/or interconnection applications.

22. Other types of CMRS are similar to PCS and will compete directly with PCS for subscribers. Likewise, MDS and LMDS service providers will be competing for many of these same subscribers as CMRS providers. In order to provide an equitable regulatory framework, the Commission should permit each of these telecommunications providers to offer WLL services regardless of their underlying or fundamental service category. This flexibility would enable companies to offer one-stop telecommunications shopping for many consumers and businesses. This proposal would also stimulate more efficient use of the nation's scarce spectrum resources.

**E. Regulatory Treatment When Fixed Wireless Local Loop Services Are Provided on CMRS Systems**

23. The Commission proposed to treat WLL services as an integral part of CMRS services offered by CMRS providers as long as the carrier otherwise offers interconnected for-profit mobile service. SR Telecom fully supports adoption of this proposal because it clarifies that CMRS providers should offer interconnected for-profit mobile service and that WLL is an integral part of that service menu.

24. Specifically, the Commission noted that its proposal to permit a carrier to offer consumers a menu of services would give the mobile customer the option of using fixed and mobile applications offered by a single provider. Notice at ¶ 20. SR Telecom believes that this is an important enhancement in the level of service offered to American consumers. SR Telecom urges the Commission to go further with this proposal, however, and to incorporate narrowband CMRS, MDS, and LMDS into this proposal, so that a truly comprehensive menu of services may be offered by a single provider.

**F. CMRS Spectrum Issues**

25. The Commission invited comment on whether there should be restrictions placed upon fixed use of the CMRS spectrum. Notice at ¶ 23. SR Telecom believes that the Commission should not restrict the use of CMRS spectrum. In order to most effectively meet the challenges of the mobile telecommunications future, and to encourage the development and deployment of new technology, the FCC must give CMRS providers the flexibility to utilize CMRS spectrum in a variety of ways. Consumers will benefit from the lack of restrictions on this spectrum through high quality of service; competitive pricing; rapid service response; and access to alternative technologies. Service suppliers, in turn, will benefit from quick rollout of new services; the ability to implement new technology without lengthy regulatory proceedings; and enhanced service provided to consumers. Finally, manufacturers will be induced to develop new technologies and further perfect existing technologies to capitalize on the continuing growth of the wireless market.

26. SR Telecom does not agree with NTIA's findings that requirements for fixed use will decrease. Local exchange operators, for example, are faced with continuing growth in demand for service. These same local exchange

operators maintain aging copper plants. In many instances, the replacement costs of these aging plants is prohibitive. One alternative will be fixed wireless service, such as WLL. Thus, SR Telecom believes that the demand for fixed wireless services will continue to grow rapidly over the next decade.

27. SR Telecom is also deeply concerned with the Commission's proposal to remedy any potential deficiency for mobile services by authorizing mobile services in spectrum currently designated for fixed services. The NTIA study did not direct the Commission to reallocate spectrum from private fixed services users. Instead, Congress has charged NTIA with responsibility for reallocating government spectrum for non-government use. Therefore, if the Commission determines that mobile services need additional spectrum, SR Telecom strongly recommends that the agency seek a specific reallocation of spectrum from the government for use by the mobile services.

28. The Commission proposed to amend the Table of Frequency Allocations for the bands 806-821 MHz, 851-866 MHz, 896-901 MHz, and 935-940 MHz to permit fixed service use of that spectrum on a co-primary basis with the land mobile services. Notice at ¶ 26. SR Telecom supports adoption of this proposal.

### **III. CONCLUSION**

29. SR Telecom believes that the FCC's proposal to permit provision of WLL by CMRS providers will benefit consumers and industry alike. SR Telecom urges the Commission to expand its proposal to permit the offering of WLL services by narrowband CMRS, MDS and LMDS.

**WHEREFORE, THE PREMISES CONSIDERED,** SR Telecom Inc. requests the Commission to act in a manner consistent with the views expressed herein.

Respectfully submitted,

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